

REMARKS

Status of the Claims

- Claims 1-9, 15, and 18 are pending in the Application after entry of this amendment.
- Claims 1-9, 15, and 18 are rejected by Examiner.
- Claims 1 and 9 are currently amended.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 1-3, 5-9, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Admitted Prior Art in view of U.S. Patent No. 7,099,697 to Okawa et al. (Okawa) in view of U.S. Patent No. 6,941,152 to Proctor, Jr. et al. (Proctor). Applicant respectfully traverses the rejection.

Claim 1 is amended to more clearly recite the aspect that multi-receiver frames are exchanged between a station and a plurality of other stations indicating the transmitting station and the receiving station in an omnidirectional manner using omnidirectional antennas at the transmitting station and at the receiving station. This aspect finds support in the as-filed specification via Figure 1 and its corresponding text, especially at page 6, lines 30-34.

Pending Claim 1 states, in relevant part:

"A method of communication in transmitting/receiving stations in a wireless communication network, in which multi-receiver frames are exchanged between a station and a plurality of other stations indicating the transmitting station and the receiving station operate in an omnidirectional manner *using omnidirectional antennas at the transmitting station and at the receiving station*, and mono-receiver frames are exchanged between the transmitting station and the receiving station when operating in a directional manner *using directional antennas at the transmitting station and at the receiving station...*" (Part of Claim 1, emphasis in italics)

Okawa fails to discuss multi-receiver frames exchanged between a transmitting station and a plurality of receiving stations using omnidirectional antennas at the transmitting station and at the receiving station and mono-receiver frames exchanged between the transmitting station and the receiving station using directional antennas at the transmitting station and at the receiving station. The use of both omnidirectional antennas and directional antennas at both transmitting and receiving stations is simply not addressed in Okawa at all.

Okawa discusses the use of directional antenna or omnidirectional antenna as to transmit individual data (as opposed to common data, such as multi-receiver data) to a mobile station according to the capability of the mobile station to receive a directional beam. If the mobile station is capable of receiving a directional beam, then the station transmits individual data to the mobile station by using the directional antenna. If the mobile station is not capable of receiving the directional beam, then the station transmits the individual data to the mobile station by using the omnidirectional antenna.

Okkawa only discloses on Figures 6A and 6B and in the corresponding parts of the Specification (e.g. at column 10, lines 3-48) directional beam-capable mobile station or a directional beam-incapable mobile station. There is no disclosure at all in Okawa of a mobile station having both omnidirectional antenna and directional antennas, let alone the use by the mobile station of a directional antenna if mono-receiver frames are transmitted by a station and of omnidirectional antenna if multi-receiver frames are transmitted by the station, as is claimed in Applicants' Claim 1.

Indeed, in Applicants' Claim 1, multi-receiver frames are exchanged between transmitting and receiving stations in an omnidirectional manner, both transmitting and receiving stations using omnidirectional antennas, and mono-receiver frames are exchanged between the transmitting and the receiving station in a directional manner, both transmitting and receiving stations using

directional antennas as to increase the throughput of the network in a general matter and specifically the throughput of mono-receiver frames.

Applicant respectfully submits that it can be well understood by those of skill in the art that Labonte fails to teach or suggest the Claim 1 element of "multi-receiver frames are exchanged between a station and a plurality of other stations indicating the transmitting station and the receiving station operate in an omnidirectional manner using omnidirectional antennas at the transmitting station and at the receiving station, and mono-receiver frames are exchanged between the transmitting station and the receiving station, operating in a directional manner using directional antennas, at the transmitting station and at the receiving station."

Proctor discusses in col. 4 lines 59 through col. 5 line 3 that the mobile users (14a) only have omnidirectional antennas. (See Proctor, Figure 4C, item 14a). Proctor discusses in col. 5 lines 16-20 that the fixed users (14b) have directional antennas. (See Proctor, Figure 4C, item 14b). Proctor achieves minimum interference by applying constraints to power output and throughput via the base station processor 16.

Proctor, like Okawa, completely fails to discuss the use of omnidirectional antenna by both the transmitting station and the receiving station when exchanging multi-receiver frames in an omnidirectional manner and the use of directional antennas by both the transmitting station and the receiving station when exchanging mono-receiver frames in a directional manner.

Applicant notes that pending independent Claim 9 contains distinctive aspects similar to that of pending Claim 1. Claim 9 is amended in format to aid readability. Applicant respectfully submits that the Admitted Art, Okkawa and Proctor, considered either alone or considered in combination, fail to teach or suggest the features of pending independent Claims 1 and 9.

Applicant respectfully submits that pending independent Claims 1 and 9 are thus not rendered obvious under 35 USC §103(a) per MPEP §2143

because all elements of the pending claims are not found in the cited art. Also, Claims 2-3, 5-9 and 18 are also not rendered obvious per MPEP §2143.03 because they depend on non-obvious independent Claims 1 and 9. Applicant respectfully requests reconsideration of the 35 U.S.C. §103(a) rejection of pending Claims 1-3, 5-9 and 18 based on the remarks above.

Claim Rejections Pursuant to 35 U.S.C. §103

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Admitted Prior Art in view of U.S. Patent No. 7,099,697 to Okawa¹ et al. (Okawa) in view of U.S. Patent No. 6,941,152 to Proctor, Jr. et al. (Proctor) and in further view of U.S. Patent No. 6,132,306 to Trompower. Applicant respectfully traverses the rejection.

The teachings of Admitted Prior Art, Okawa and Proctor are discussed above.

Trompower discusses a cellular telephone communications system with dedicated repeater channels that are located in the base stations. The discussion of Trompower discusses how the contention areas formed by overlapping cells is effectively eliminated. (See Trompower, Abstract).

However, Trompower, like Okawa and Proctor, fails to discuss that multi-receiver frames are exchanged between a station and a plurality of other stations using omnidirectional antennas at the transmitting station and at the receiving station, and that mono-receiver frames are exchanged using directional antennas at the transmitting and receiving stations as is recited in pending independent Claim 1 upon which Claim 4 depends.

Since independent Claim 1 is not rendered obvious by the combination of Admitted Prior Art, Okawa, Proctor, and Trompower because all elements of independent Claim 1 are not taught or suggested by the combination, then dependent Claim 4 is likewise rendered non obvious under 35 U.S.C §103(a) per MPEP §2143.03. Applicant respectfully requests reconsideration of the 35 U.S.C. §103(a) rejection of pending Claim 4.

Claim Rejections Pursuant to 35 U.S.C. §103

Claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Admitted Prior Art in view of U.S. Patent No. 7,099,697 to Okawa et al. (Okawa) in view of U.S. Patent No. 6,941,152 to Proctor, Jr. et al. (Proctor) and in further view of U.S. Patent No. 7,092,672 to Pekonen et al. (Pekonen). Applicant respectfully traverses the rejection.

The teachings of Admitted Prior Art, Okawa and Proctor are discussed above.

Pekonen discusses the reporting of cell measurement results in a cellular communication system. The cell measurements are performed by the transceiver station for getting cell measurement results associated with a number of the cells. Relevant cell measurement results are then selected and the selected results are transmitted in the defined reporting order. (See Pekonen, Abstract).

However, Pekonen, like Okawa and Proctor, fails to discuss that multi-receiver frames are exchanged between a station and a plurality of other stations using omnidirectional antennas at the transmitting station and at the receiving stations, and that mono-receiver frames are exchanged using directional antennas of the receiver and transmitter stations as recited in pending independent Claim 9 upon which Claim 15 depends.

Since independent Claim 9 is not rendered obvious by the combination of Admitted Prior Art, Okawa, Proctor, and Pekonen because all elements of independent Claim 9 are not taught or suggested by the combination, then dependent Claim 15 is likewise rendered non obvious under 35 U.S.C §103(a) per MPEP §2143.03. Applicant respectfully requests reconsideration of the 35 U.S.C. §103(a) rejection of pending Claim 15.

Conclusion

Applicant respectfully submits that the amended pending claims patentably define over the cited art and respectfully requests reconsideration and withdrawal of the rejections of all pending claims based on the arguments presented herein.

Applicant respectfully requests that the Examiner reconsider all of the claim elements of the pending claims including the claimed association between types of frames and antenna types as highlighted in the arguments above.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefore.

Respectfully submitted,
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